Environmental Profile

This LCA is calculated according to: ISO 14044, ISO 14040 and EN 15804

Ecochain v3.5.80

Product:	3025856 - PVC Repair Coupler WT 93x100 BC
Unit:	1 Piece
Manufacturer:	Wavin - FR - Varennes

The Wavin range of PVC pipes and fittings to be glued covers all the usual diameters and allows you to create networks that are 100% compatible, homogeneous and meet the requirements of the French market.

LCA standard:	EN15804+A2 (2019)
Standard database:	Worldwide - Ecoinvent v 3.6 Cut-Off
Externally verified:	Yes
Issue date:	24-11-2022
End of validity:	24-11-2027
Verifier:	Martijn van Hövell - SGS Search

This LCA was evaluated according to EN15804+A2. It was concluded that the LCA complies with this standard.

The LCA background information and project dossier have been registered in the online Ecochain application in the account Wavin - FR - Varennes (2020). (☑ = module declared, MND = module not declared).

A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
☑	☑	☑	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	☑	☑	☑	☑

Product stage

A1 Raw material supply A2 Transport A3 Manufacturing

Construction process stage

A4 Transport gate to site
A5 Assembly / Construction installation process

Use stage

B1 Use B2 Maintenance B3 Repair B4 Replacement B5 Refurbishment
B6 Operational energy use B7 Operational water use

End-of-Life stage

C1 De-construction demolition C2 Transport C3 Waste processing
C4 Disposal

Benefits and loads beyond the system boundaries

D Reuse- Recovery- Recycling- potential

Environmental impacts and parameters

GWP-total = EF EN15804+A2 Climate Change [kg CO2 eq]; **GWP-f** = EF Climate change - Fossil [kg CO2 eq]; **GWP-b** = EF EN15804+A2 Climate Change - Biogenic [kg CO2 eq]; **GWP-luluc** = EF EN15804+A2 Climate Change - Land use and LU change [kg CO2 eq]; **ODP** = EF Ozone depletion [kg CFC11 eq]; **AP** = EF Acidification [mol H+ eq]; **EP-fw** = EF Eutrophication, freshwater [kg P eq]; **EP-m** = EF Eutrophication, marine [kg N eq]; **EP-T** = EF Eutrophication, terrestrial [mol N eq]; **POCP** = EF Photochemical ozone formation [kg NMVOC eq]; **ADP-mm** = EF Resource use, minerals and metals [kg Sb eq]; **ADP-f** = EF Resource use, fossils [MJ]; **WDP** = EF Water use [m3 depriv.]; **PM** = EF Particulate matter [disease inc.]; **IR** = EF Ionising radiation [kBq U-235 eq]; **ETP-fw** = EF Ecotoxicity, freshwater [CTUe]; **HTP-c** = EF Human toxicity, cancer [CTUh]; **HTP-nc** = EF Human toxicity, non-cancer [CTUh]; **SQP** = EF Land use [Pt]; **PERE** = Use of renewable primary energy excluding renewable primary energy resources used as raw materials [MJ]; **PERM** = Use of renewable primary energy resources used as raw materials [MJ]; **PERT** = Total use of renewable primary energy resources [MJ]; **PENRE** = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials [MJ]; **PENRM** = Use of non-renewable primary energy resources used as raw materials [MJ]; **PENRT** = Total use of non-renewable primary energy resources [MJ]; **PET** = Total energy [MJ]; **SM** = Use of secondary material [kg]; **RSF** = Use of renewable secondary fuels [MJ]; **NRSF** = Use of non-renewable secondary fuels [MJ]; **FW** = Use of net fresh water [m3]; **HWD** = Hazardous waste disposed [kg]; **NHWD** = Non-hazardous waste disposed [kg]; **RWD** = Radioactive waste disposed [kg]; **CRU** = Components for re-use [kg]; **MFR** = Materials for recycling [kg]; **MER** = Materials for energy recovery [kg]; **EE** = Exported energy [MJ]; **EET** = Exported energy thermic [MJ]; **EEE** = Exported energy electric [MJ]

Statement of Confidentiality

Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	2.72E-1	8.56E-3	1.20E-2	2.93E-1	3.24E-3	1.53E-1	1.04E-3	-1.21E-1	3.29E-1
GWP-f	kg CO2 eq	3.15E-1	8.55E-3	9.23E-3	3.32E-1	3.24E-3	9.06E-2	1.04E-3	-1.58E-1	2.70E-1
GWP-b	kg CO2 eq	-4.26E-2	5.19E-6	2.79E-3	-3.98E-2	1.97E-6	6.21E-2	1.24E-6	3.67E-2	5.90E-2
GWP-luluc	kg CO2 eq	4.72E-4	3.03E-6	1.18E-5	4.87E-4	1.15E-6	3.89E-5	2.94E-8	-3.70E-4	1.57E-4
ODP	kg CFC11 eq	1.32E-7	1.97E-9	1.23E-9	1.35E-7	7.46E-10	1.07E-8	3.81E-11	-7.06E-8	7.62E-8
AP	mol H+ eq	2.39E-3	4.87E-5	6.47E-5	2.50E-3	1.84E-5	1.95E-4	9.35E-7	-7.22E-4	2.00E-3
EP-fw	kg P eq	1.60E-5	7.03E-8	2.25E-7	1.63E-5	2.66E-8	1.30E-6	1.29E-9	-8.48E-6	9.17E-6
EP-m	kg N eq	3.22E-4	1.74E-5	1.81E-5	3.58E-4	6.60E-6	5.00E-5	5.47E-7	-1.39E-4	2.76E-4
EP-T	mol N eq	3.37E-3	1.92E-4	2.33E-4	3.80E-3	7.27E-5	5.50E-4	3.71E-6	-1.53E-3	2.90E-3
POCP	kg NMVOC eq	1.07E-3	5.49E-5	5.35E-5	1.18E-3	2.08E-5	1.65E-4	1.28E-6	-4.84E-4	8.85E-4
ADP-mm	kg Sb eq	2.96E-4	2.21E-7	2.53E-7	2.96E-4	8.38E-8	7.76E-7	9.61E-10	-3.09E-6	2.94E-4
ADP-f	MJ	6.80E+0	1.31E-1	1.27E-1	7.05E+0	4.97E-2	5.22E-1	2.79E-3	-3.66E+0	3.97E+0
WDP	m3 depriv.	4.52E-1	4.03E-4	2.34E-1	6.86E-1	1.53E-4	1.90E-2	2.80E-5	-2.49E-1	4.57E-1
PM	disease inc.	1.46E-8	7.72E-10	9.02E-10	1.63E-8	2.92E-10	2.50E-9	1.92E-11	-7.56E-9	1.16E-8
IR	kBq U-235 eq	1.72E-2	5.74E-4	3.41E-4	1.81E-2	2.17E-4	1.85E-3	1.26E-5	-8.83E-3	1.13E-2
ETP-fw	CTUe	1.26E+1	1.07E-1	1.54E-1	1.29E+1	4.04E-2	3.65E+0	3.95E-2	-4.88E+0	1.18E+1
HTP-c	CTUh	4.07E-10	3.79E-12	1.04E-11	4.21E-10	1.44E-12	6.59E-11	8.31E-14	-1.09E-10	3.80E-10
HTP-nc	CTUh	8.90E-9	1.27E-10	2.91E-10	9.32E-9	4.81E-11	1.35E-9	7.73E-12	-3.33E-9	7.40E-9
SQP	Pt	6.52E+0	1.12E-1	1.02E+0	7.65E+0	4.25E-2	3.25E-1	7.07E-3	-1.03E+1	-2.27E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.23E+0	1.88E-3	2.60E-1	1.50E+0	7.13E-4	3.57E-2	9.74E-5	-1.84E+0	-3.12E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.23E+0	1.88E-3	2.60E-1	1.50E+0	7.13E-4	3.57E-2	9.74E-5	-1.84E+0	-3.12E-1
PENRE	MJ	7.29E+0	1.39E-1	1.37E-1	7.57E+0	5.28E-2	5.55E-1	2.96E-3	-3.93E+0	4.25E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	7.29E+0	1.39E-1	1.37E-1	7.57E+0	5.28E-2	5.55E-1	2.96E-3	-3.93E+0	4.25E+0
PET	MJ	8.52E+0	1.41E-1	3.96E-1	9.06E+0	5.35E-2	5.91E-1	3.06E-3	-5.77E+0	3.94E+0
SM	kg	0	0	0	0	0	0	0	0	0
RSF	MJ	0	0	0	0	0	0	0	0	0
NRSF	MJ	0	0	0	0	0	0	0	0	0
FW	m3	6.34E-3	1.48E-5	5.48E-3	1.18E-2	5.62E-6	5.27E-4	3.37E-6	-3.47E-3	8.90E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	4.28E-5	3.36E-7	1.71E-7	4.33E-5	1.27E-7	8.87E-7	3.48E-9	-3.37E-6	4.09E-5
NHWD	kg	7.38E-2	8.13E-3	1.26E-3	8.32E-2	3.08E-3	1.96E-2	1.23E-2	-1.50E-2	1.03E-1
RWD	kg	1.56E-5	8.92E-7	3.46E-7	1.69E-5	3.38E-7	2.06E-6	1.80E-8	-8.03E-6	1.12E-5
CRU	kg	0	0	0	0	0	0	0	0	0
MFR	kg	0	0	0	0	0	0	0	0	0
MER	kg	0	0	0	0	0	0	0	0	0
EE	MJ	0	0	0	0	0	0	0	0	0
EET	MJ	0	0	0	0	0	0	0	0	0
EEE	MJ	0	0	0	0	0	0	0	0	0

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